

N00109.AR.003015  
NWS YORKTOWN  
5090.3a

VALIDATED DATA PACKAGE, A502198, NWS YORKTOWN VA  
7/13/2015  
CH2M HILL

## Data Validation Summary

### Yorktown CTO-WE19, Site 25

TO: Clairette Campbell/VBO  
Anita Dodson/VBO

FROM: Tiffany McGlynn/GNV

CC: Herb Kelly/GNV

DATE: July 13, 2015

#### Introduction

The following data validation report discusses the data validation process and findings for ENCO Laboratories, for SDG A502198.

Samples were analyzed using the following analytical methods:

- SW6010C Metals
- SW7471B Mercury
- SW9014 Cyanide

The samples included in this SDG are listed in the table below.

Sample Name	Matrix
YS25-SS08-0415	Soil
YS25-SB08-0H02-0415	Soil
YS25-SS09-0415	Soil
YS25-SB09-0H02-0415	Soil
YS25-SS14-0415	Soil
YS25-SS14P-0415	Soil
YS25-SB14-0H02-0415	Soil
YS25-SB14P-0H02-0415	Soil
YS25-SS16-0415	Soil
YS25-SB16-0H02-0415	Soil
YS25-SS17-0415	Soil
YS25-SB17-0H02-0415	Soil

## **Data Evaluation**

Data was evaluated in accordance with the analytical methods and with the criteria found in the following guidance documents: Sampling and Analysis Plan Site Remedial Investigation Site 25 Naval Weapons Station Yorktown, Virginia CTO-WE-19 (March 2015) and Region III Modifications for Inorganic Data Review (EPA 1993), as applicable. The samples were evaluated based on the following criteria:

- Data Completeness
- Technical Holding Times
- Instrument Tuning
- Initial/Continuing Calibrations
- Blanks
- Internal Standards
- Laboratory Control Samples
- Matrix Spike Recoveries
- Field Duplicates
- Serial Dilution
- Interference Check Sample
- Identification/Quantitation
- Reporting Limits

### **Overall Evaluation of Data/Potential Usability Issues**

Specific details regarding qualification of the data are addressed in the sections below. If an issue is not addressed there were no actions required based on unmet quality criteria. When more than one qualifier is associated with a compound/analyte, the validator has chosen the qualifier that best indicates possible bias in the results and qualified these data accordingly.

#### **Data Completeness**

The SDG was received complete and intact.

## Technical Holding Times

According to the chain of custody records, sampling was performed on 4/9/15. Samples were received at the laboratory on 4/10/15. All sample preparation analysis was performed within holding time requirements.

## Blanks

Several compounds were detected in the associated equipment blank as listed below. Affected data are summarized in **Attachment 1**.

Blank ID	Compound	Conc.	Units
YS25-EB040915	Barium	0.603	UG_L
YS25-EB040915	Calcium	55.5	UG_L
YS25-EB040915	Copper	2.69	UG_L
YS25-EB040915	Nickel	0.966	UG_L
YS25-EB040915	Sodium	230	UG_L
YS25-EB040915	Thallium	8.79	UG_L

## Field Duplicate Precision

For native sample YS25-SS14-0415 and field duplicate YS25-SS14P-0415, calcium, lead, and potassium did not meet precision criteria.

For native sample YS25-SB14-0H02-0415 and field duplicate YS25-SB14P-0H02-0415, copper did not meet precision criteria.

Affected data are summarized in **Attachment 1**.

## Conclusion

These data can be used in the project decision-making process as qualified by the data quality evaluation process.

Please do not hesitate to contact us about this validation report.

Sincerely,



Tiffany McGlynn

## Qualification Flags

Exclude	More appropriate data exist for this analyte.
R	Data were rejected for use.
UL	Analyte not detected, quantitation limit is potentially biased low.
UJ	Analyte not detected, estimated quantitation limit.
U	Analyte not detected.
B	Not detected substantially above the level reported in laboratory or field blanks.
L	Analyte present, estimated value potentially biased low.
K	Analyte present, estimated value potentially biased high.
N	Analyte identification presumptive; no second column analysis performed or GC/MS tentative identification.
J	Analyte present, estimated value.
NJ	Analysis indicates the presence of an analyte that was "tentatively identified" and the associated value represents its approximate concentration.
None	Placeholder for calculating quality control issues that do not require flagging.
=	Analyte was detected at a concentration greater than the quantitation limit.

## Qualifier Code Reference

<b>Value</b>	<b>Description</b>
%SOL	High Moisture content
2C	Second Column – Poor Dual Column Reproducibility
2S	Second Source – Bad reproducibility between tandem detectors
BD	Blank Spike/Blank Spike Duplicate(LCS/LCSD) Precision
BRL	Below Reporting Limit
BSH	Blank Spike/LCS – High Recovery
BSL	Blank Spike/LCS – Low Recovery
CC	Continuing Calibration
CCBL	Continuing Calibration Blank Contamination
CCH	Continuing Calibration Verification – High Recovery
CCL	Continuing Calibration Verification – Low Recovery
DL	Redundant Result – due to Dilution
EBL	Equipment Blank Contamination
EMPC	Estimated Possible Maximum Concentration
ESH	Extraction Standard - High Recovery
ESL	Extraction Standard - Low Recovery
FBL	Field Blank Contamination
FD	Field Duplicate
HT	Holding Time
ICB	Initial Calibration – Bad Linearity or Curve Function
ICH	Initial Calibration – High Relative Response Factors
ICL	Initial Calibration – Low Relative Response Factors
IR15	Ion ratio exceeds +/- 15% difference
ISH	Internal Standard – High Recovery
ISL	Internal Standard – Low Recovery
LD	Lab Duplicate Reproducibility
LR	Concentration Exceeds Linear Range
MBL	Method Blank Contamination
MDP	Matrix Spike/Matrix Spike Duplicate Precision
MI	Matrix interference obscuring the raw data

MSH	Matrix Spike and/or Matrix Spike Duplicate – High Recovery
MSL	Matrix Spike and/or Matrix Spike Duplicate – Low Recovery
OT	Other
PD	Pesticide Degradation
RE	Redundant Result - due to Reanalysis or Re-extraction
SD	Serial Dilution Reproducibility
SSH	Spiked Surrogate – High Recovery
SSL	Spiked Surrogate – Low Recovery
TBL	Trip Blank Contamination
TN	Tune

Yorktown Site 25  
 Attachment 1 Change Qual. Table  
 SDG A502198

Sample ID	Compound	Q Flag	Qual Code
YS25-SS08-0415	Sodium	B	EBL
YS25-SB08-0H02-0415	Sodium	B	EBL
YS25-SB08-0H02-0415	Thallium	B	EBL
YS25-SS09-0415	Sodium	B	EBL
YS25-SB09-0H02-0415	Sodium	B	EBL
YS25-SS14-0415	Calcium	J	FD
YS25-SS14-0415	Lead	J	FD
YS25-SS14-0415	Potassium	J	FD
YS25-SS14-0415	Sodium	B	EBL
YS25-SS14P-0415	Calcium	J	FD
YS25-SS14P-0415	Lead	J	FD
YS25-SS14P-0415	Potassium	J	FD
YS25-SS14P-0415	Sodium	B	EBL
YS25-SB14-0H02-0415	Copper	J	FD
YS25-SB14-0H02-0415	Sodium	B	EBL
YS25-SB14P-0H02-0415	Copper	J	FD
YS25-SB14P-0H02-0415	Sodium	B	EBL
YS25-SS16-0415	Sodium	B	EBL
YS25-SB16-0H02-0415	Sodium	B	EBL
YS25-SS17-0415	Sodium	B	EBL
YS25-SS17-0415	Thallium	B	EBL
YS25-SB17-0H02-0415	Sodium	B	EBL
YS25-SB17-0H02-0415	Thallium	B	EBL

# ANALYSIS DATA SHEET

YS25-SS08-0415

Laboratory: Empirical Laboratories, LLC SDG: 1504078  
 Client: Environmental Conservation Laborato Project: Yorktown Site 25 CTO-WE19  
 Matrix: Solid Prepared: 04/14/15 11:33 Dilution: ↓  
 Sampled: 04/09/15 09:00 Preparation: EXT EXPL S Batch: 5D14018  
 Solids:  
 Laboratory ID: 1504078-01 File ID: 170V7001.D.Report.TXT  
 Sequence: 5D11916 Analyzed: 04/22/15 23:02  
 Calibration: 5086002 Instrument: HPLC1-[C1]

CAS NO.	COMPOUND	CONC. (mg/Kg)	DL	LOD	LOQ	Q
99-35-4	1,3,5-Trinitrobenzene		0.0198	0.0395	0.0791	U
99-65-0	1,3-Dinitrobenzene		0.0198	0.0395	0.0791	U
118-96-7	2,4,6-Trinitrotoluene		0.0198	0.0395	0.0791	U
121-14-2	2,4-Dinitrotoluene		0.0198	0.0395	0.0791	U
606-20-2	2,6-Dinitrotoluene		0.0198	0.0395	0.0791	U
35572-78-2	2-Amino-4,6-dinitrotoluene		0.0198	0.0395	0.0791	U
88-72-2	2-Nitrotoluene		0.0198	0.0395	0.0791	U
618-87-1	3,5-Dinitroaniline		0.0198	0.0395	0.0791	∅U
99-08-1	3-Nitrotoluene		0.0198	0.0395	0.0791	U
19406-51-0	4-Amino-2,6-dinitrotoluene		0.0198	0.0395	0.0791	U
99-99-0	4-Nitrotoluene		0.0198	0.0395	0.0791	U
2691-41-0	HMX EXCLUDE-LR	<del>HI</del>	<del>0.0198</del>	<del>0.0395</del>	<del>0.0791</del>	<del>E</del>
98-95-3	Nitrobenzene		0.0198	0.0395	0.0791	U
55-63-0	Nitroglycerin		0.0494	0.0988	0.198	U
78-11-5	PETN		0.0494	0.0988	0.198	U
479-45-8	Tetryl		0.0198	0.0395	0.0791	U
SYSTEM MONITORING COMPOUND		ADDED (mg/Kg)	CONC (mg/Kg)	% REC	QC LIMITS	Q
1-Chloro-3-nitrobenzene		0.1976	0.1773	90	84 - 127	

Laboratory ID: 1504078-01RE1 Second Column Analysis File ID: 005V0801.D.Report.TXT  
 Sequence: 5D11701 Analyzed: 04/20/15 18:58  
 Calibration: 5096002 Instrument: HPLC2-[C2]

CAS NO.	COMPOUND	CONC. (mg/Kg)	DL	LOD	LOQ	Q
121-82-4	RDX		0.0198	0.0395	0.0791	U
SYSTEM MONITORING COMPOUND		ADDED (mg/Kg)	CONC (mg/Kg)	% REC	QC LIMITS	Q
1-Chloro-3-nitrobenzene		0.1976	0.1906	96	84 - 127	

Explosive sample dual column analysis do not conform to normal dual column analysis, such as Pesticides, due to the fact that separate instrument systems are used for each column. When dual column analyses are required, each injection has a different date/time/instrument reference. Lab ID's appended with RE# indicate subsequent analysis for the original sample. If analytes are previously confirmed on both columns, sample dilutions may not have a confirmatory analytical run.

Total Target Analytes Reported: 17 Project Analytes: 34

TAH 7/11/15

## ANALYSIS DATA SHEET

YS25-SS08-0415

Laboratory:	<u>Empirical Laboratories, LLC</u>	SDG:	<u>1504078</u>
Client:	<u>Environmental Conservation Laborato</u>	Project:	<u>Yorktown Site 25 CTO-WE19</u>
Matrix:	<u>Solid</u>	Prepared:	<u>04/14/15 11:33</u>
Sampled:	<u>04/09/15 09:00</u>	Preparation:	<u>EXT EXPL S</u>
Solids:		Dilution:	<u>20</u>
Laboratory ID:	<u>1504078-01RE2</u>	Batch:	<u>5D14018</u>
Sequence:	<u>5D11704</u>	File ID:	<u>103V0301.D.Report.TXT</u>
Calibration:	<u>5086002</u>	Analyzed:	<u>04/20/15 14:48</u>
		Instrument:	<u>HPLC1-[C1]</u>

CAS NO.	COMPOUND	CONC. (mg/Kg)	DL	LOD	LOQ	Q
2691-41-0	HMX	126	0.395	0.791	1.58	<del>D</del>
SYSTEM MONITORING COMPOUND		ADDED (mg/Kg)	CONC (mg/Kg)	% REC	QC LIMITS	Q
1-Chloro-3-nitrobenzene		0.1976	ND		84 - 127	<del>DU</del>

Explosive sample dual column analysis do not conform to normal dual column analysis, such as Pesticides, due to the fact that separate instrument systems are used for each column. When dual column analyses are required, each injection has a different date/time/instrument reference. Lab ID's appended with RE# indicate subsequent analysis for the original sample. If analytes are previously confirmed on both columns, sample dilutions may not have a confirmatory analytical run.

Total Target Analytes Reported: 1 Project Analytes: 34

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## ANALYSIS DATA SHEET

YS25-SB14-01102-0415

Laboratory:	<u>Empirical Laboratories, LLC</u>	SDG:	<u>1504078</u>
Client:	<u>Environmental Conservation Laborato</u>	Project:	<u>Yorktown Site 25 CTO-WE19</u>
Matrix:	<u>Solid</u>	Prepared:	<u>04/14/15 11:33</u>
Sampled:	<u>04/09/15 11:00</u>	Preparation:	<u>EXT EXPL S</u>
Solids:		Dilution:	<u>1</u>
Laboratory ID:	<u>1504078-07</u>	File ID:	<u>179V7901.D.Report.TXT</u>
Sequence:	<u>5D11916</u>	Analyzed:	<u>04/23/15 03:25</u>
Calibration:	<u>5086002</u>	Instrument:	<u>HPLC1-[C1]</u>

CAS NO.	COMPOUND	CONC. (mg/Kg)	DL	LOD	LOQ	Q
99-35-4	1,3,5-Trinitrobenzene		0.0199	0.0398	0.0795	U
99-65-0	1,3-Dinitrobenzene		0.0199	0.0398	0.0795	U
118-96-7	2,4,6-Trinitrotoluene		0.0199	0.0398	0.0795	U
121-14-2	2,4-Dinitrotoluene		0.0199	0.0398	0.0795	U
606-20-2	2,6-Dinitrotoluene		0.0199	0.0398	0.0795	U
35572-78-2	2-Amino-4,6-dinitrotoluene		0.0199	0.0398	0.0795	U
88-72-2	2-Nitrotoluene		0.0199	0.0398	0.0795	U
618-87-1	3,5-Dinitroaniline		0.0199	0.0398	0.0795	U
99-08-1	3-Nitrotoluene		0.0199	0.0398	0.0795	U
19406-51-0	4-Amino-2,6-dinitrotoluene		0.0199	0.0398	0.0795	U
99-99-0	4-Nitrotoluene		0.0199	0.0398	0.0795	U
2691-41-0	HMX	0.0707	0.0199	0.0398	0.0795	J
98-95-3	Nitrobenzene		0.0199	0.0398	0.0795	U
55-63-0	Nitroglycerin		0.0497	0.0994	0.199	U
78-11-5	PETN		0.0497	0.0994	0.199	U
479-45-8	Tetryl		0.0199	0.0398	0.0795	U
SYSTEM MONITORING COMPOUND		ADDED (mg/Kg)	CONC (mg/Kg)	% REC	QC LIMITS	Q
1-Chloro-3-nitrobenzene		0.1988	0.1974	99	84 - 127	

Laboratory ID:	<u>1504078-07RE1</u>	<b>Second Column Analysis</b>	File ID:	<u>015V1801.D.Report.TXT</u>
Sequence:	<u>5D11701</u>		Analyzed:	<u>04/21/15 05:27</u>
Calibration:	<u>5096002</u>		Instrument:	<u>HPLC2-[C2]</u>

CAS NO.	COMPOUND	CONC. (mg/Kg)	DL	LOD	LOQ	Q
121-82-4	RDX		0.0199	0.0398	0.0795	U
SYSTEM MONITORING COMPOUND		ADDED (mg/Kg)	CONC (mg/Kg)	% REC	QC LIMITS	Q
1-Chloro-3-nitrobenzene		0.1988	0.2018	102	84 - 127	

Explosive sample dual column analysis do not conform to normal dual column analysis, such as Pesticides, due to the fact that separate instrument systems are used for each column. When dual column analyses are required, each injection has a different date/time/instrument reference. Lab ID's appended with RE# indicate subsequent analysis for the original sample. If analytes are previously confirmed on both columns, sample dilutions may not have a confirmatory analytical run.

Total Target Analytes Reported: 17 Project Analytes: 34

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## ANALYSIS DATA SHEET

YS25-SB16-01102-0415

Laboratory: <u>Empirical Laboratories, LLC</u>	SDG: <u>1504078</u>	Project: <u>Yorktown Site 25 CTO-WE19</u>
Client: <u>Environmental Conservation Laborato</u>	Prepared: <u>04/14/15 11:33</u>	Dilution: <u>1</u>
Matrix: <u>Solid</u>	Preparation: <u>EXT EXPL S</u>	Batch: <u>5D14018</u>
Sampled: <u>04/09/15 12:00</u>		
Solids:		
Laboratory ID: <u>1504078-10</u>	File ID: <u>182V8201.D.Report.TXT</u>	
Sequence: <u>5D11916</u>	Analyzed: <u>04/23/15 04:53</u>	
Calibration: <u>5086002</u>	Instrument: <u>HPLC1-IC1</u>	

CAS NO.	COMPOUND	CONC. (mg/Kg)	DL	LOD	LOQ	Q
99-35-4	1,3,5-Trinitrobenzene		0.0197	0.0394	0.0788	U
99-65-0	1,3-Dinitrobenzene J-2C	<b>0.0329</b>	0.0197	0.0394	0.0788	<del>JMP</del>
118-96-7	2,4,6-Trinitrotoluene		0.0197	0.0394	0.0788	U
121-14-2	2,4-Dinitrotoluene		0.0197	0.0394	0.0788	U
606-20-2	2,6-Dinitrotoluene		0.0197	0.0394	0.0788	U
35572-78-2	2-Amino-4,6-dinitrotoluene		0.0197	0.0394	0.0788	U
88-72-2	2-Nitrotoluene		0.0197	0.0394	0.0788	U
618-87-1	3,5-Dinitroaniline		0.0197	0.0394	0.0788	∅U
99-08-1	3-Nitrotoluene		0.0197	0.0394	0.0788	U
19406-51-0	4-Amino-2,6-dinitrotoluene		0.0197	0.0394	0.0788	U
2691-41-0	HMX		0.0197	0.0394	0.0788	U
98-95-3	Nitrobenzene		0.0197	0.0394	0.0788	U
55-63-0	Nitroglycerin		0.0493	0.0985	0.197	U
78-11-5	PETN		0.0493	0.0985	0.197	U
479-45-8	Tetryl		0.0197	0.0394	0.0788	U
SYSTEM MONITORING COMPOUND		ADDED (mg/Kg)	CONC (mg/Kg)	% REC	QC LIMITS	Q
1-Chloro-3-nitrobenzene		0.1970	0.2065	105	84 - 127	

Laboratory ID: <u>1504078-10RE1</u>	<b>Second Column Analysis</b>	File ID: <u>018V2101.D.Report.TXT</u>
Sequence: <u>5D11701</u>		Analyzed: <u>04/21/15 08:36</u>
Calibration: <u>5096002</u>		Instrument: <u>HPLC2-IC2</u>

CAS NO.	COMPOUND	CONC. (mg/Kg)	DL	LOD	LOQ	Q
99-99-0	4-Nitrotoluene		0.0197	0.0394	0.0788	U
121-82-4	RDX		0.0197	0.0394	0.0788	U
SYSTEM MONITORING COMPOUND		ADDED (mg/Kg)	CONC (mg/Kg)	% REC	QC LIMITS	Q
1-Chloro-3-nitrobenzene		0.1970	0.1879	95	84 - 127	

Explosive sample dual column analysis do not conform to normal dual column analysis, such as Pesticides, due to the fact that separate instrument systems are used for each column. When dual column analyses are required, each injection has a different date/time/instrument reference. Lab ID's appended with RE# indicate subsequent analysis for the original sample. If analytes are previously confirmed on both columns, sample dilutions may not have a confirmatory analytical run.

Total Target Analytes Reported: 17 Project Analytes: 34

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## ANALYSIS DATA SHEET

YS25-SS19-0415

Laboratory:	<u>Empirical Laboratories, I.L.C</u>	SDG:	<u>1504078</u>
Client:	<u>Environmental Conservation Laborato</u>	Project:	<u>Yorktown Site 25 CTO-WE19</u>
Matrix:	<u>Solid</u>	Prepared:	<u>04/14/15 11:33</u>
Sampled:	<u>04/09/15 14:00</u>	Preparation:	<u>EXT EXPL S</u>
Solids:		Dilution:	<u>1</u>
Laboratory ID:	<u>1504078-13</u>	Batch:	<u>5D14018</u>
Sequence:	<u>5D11916</u>	File ID:	<u>187V8701.D.Report.TXT</u>
Calibration:	<u>5086002</u>	Analyzed:	<u>04/23/15 07:19</u>
		Instrument:	<u>HPLC1-[C1]</u>

CAS NO.	COMPOUND	CONC. (mg/Kg)	DL	LOD	LOQ	Q
99-35-4	1,3,5-Trinitrobenzene		0.0186	0.0371	0.0743	U
118-96-7	2,4,6-Trinitrotoluene		0.0186	0.0371	0.0743	U
121-14-2	2,4-Dinitrotoluene		0.0186	0.0371	0.0743	U
606-20-2	2,6-Dinitrotoluene		0.0186	0.0371	0.0743	U
35572-78-2	2-Amino-4,6-dinitrotoluene		0.0186	0.0371	0.0743	U
88-72-2	2-Nitrotoluene		0.0186	0.0371	0.0743	U
618-87-1	3,5-Dinitroaniline		0.0186	0.0371	0.0743	ΦU
99-08-1	3-Nitrotoluene		0.0186	0.0371	0.0743	U
19406-51-0	4-Amino-2,6-dinitrotoluene		0.0186	0.0371	0.0743	U
99-99-0	4-Nitrotoluene		0.0186	0.0371	0.0743	U
2691-41-0	HMX	0.0875	0.0186	0.0371	0.0743	
98-95-3	Nitrobenzene		0.0186	0.0371	0.0743	U
55-63-0	Nitroglycerin		0.0464	0.0929	0.186	U
78-11-5	PETN		0.0464	0.0929	0.186	U
479-45-8	Tetryl		0.0186	0.0371	0.0743	U
SYSTEM MONITORING COMPOUND		ADDED (mg/Kg)	CONC (mg/Kg)	% REC	QC LIMITS	Q
1-Chloro-3-nitrobenzene		0.1857	0.1809	97	84 - 127	

Laboratory ID:	<u>1504078-13RE1</u>	Second Column Analysis	File ID:	<u>021V2401.D.Report.TXT</u>
Sequence:	<u>5D11701</u>		Analyzed:	<u>04/21/15 11:44</u>
Calibration:	<u>5096002</u>		Instrument:	<u>HPLC2-[C2]</u>

CAS NO.	COMPOUND	CONC. (mg/Kg)	DL	LOD	LOQ	Q
99-65-0	1,3-Dinitrobenzene		0.0186	0.0371	0.0743	U
121-82-4	RDX		0.0186	0.0371	0.0743	U
SYSTEM MONITORING COMPOUND		ADDED (mg/Kg)	CONC (mg/Kg)	% REC	QC LIMITS	Q
1-Chloro-3-nitrobenzene		0.1857	0.2020	109	84 - 127	

Explosive sample dual column analysis do not conform to normal dual column analysis, such as Pesticides, due to the fact that separate instrument systems are used for each column. When dual column analyses are required, each injection has a different date/time/instrument reference. Lab ID's appended with RE# indicate subsequent analysis for the original sample. If analytes are previously confirmed on both columns, sample dilutions may not have a confirmatory analytical run.

Total Target Analytes Reported: 17 Project Analytes: 34

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# INORGANIC ANALYSIS DATA SHEET

EPA 9014

YS25-SS08-0415

Laboratory: ENCO Orlando

SDG: A502198-WE19

Client: CH2M Hill, Inc. (CH025)

Project: CTO-WE19 Yorktown Site 25-SOILS

Matrix: Soil

Laboratory ID: A502198-01

File ID: 5D16005-1

Sampled: 04/09/15 09:00

Prepared: 04/16/15 08:39

Analyzed: 04/17/15 13:35

Solids: 85.54

Preparation: NO PREP

Initial/Final: 4.97 g / 50 mL

Batch: 5D16005

Sequence:

AA33603

Calibration: 1504071

Instrument: OWETSSPEC2

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	Q	DL	LOD	LOQ	Method
57-12-5	Cyanide (total)	0.13	1	J	0.11	0.34	0.42	EPA 9014

KW071315

# INORGANIC ANALYSIS DATA SHEET

EPA 9014

YS25-SB08-0H02-0415

Laboratory: ENCO Orlando

SDG: A502198-WE19

Client: CH2M Hill, Inc. (CH025)

Project: CTO-WE19 Yorktown Site 25-SOILS

Matrix: Soil

Laboratory ID: A502198-02

File ID: 5D16005-1

Sampled: 04/09/15 09:10

Prepared: 04/16/15 08:39

Analyzed: 04/17/15 13:35

Solids: 90.83

Preparation: NO PREP

Initial/Final: 5.02 g / 50 mL

Batch: 5D16005

Sequence:

AA33603

Calibration: 1504071

Instrument: OWETSSPEC2

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	Q	DL	LOD	LOQ	Method
57-12-5	Cyanide (total)	<0.32	1	U	0.11	0.32	0.40	EPA 9014

KW071315

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# INORGANIC ANALYSIS DATA SHEET

EPA 9014

YS25-SS09-0415

Laboratory: ENCO Orlando

SDG: A502198-WE19

Client: CH2M Hill, Inc. (CH025)

Project: CTO-WE19 Yorktown Site 25-SOILS

Matrix: Soil

Laboratory ID: A502198-03

File ID: 5D16005-1

Sampled: 04/09/15 09:45

Prepared: 04/16/15 08:39

Analyzed: 04/17/15 13:35

Solids: 85.03

Preparation: NO PREP

Initial/Final: 4.96 g / 50 mL

Batch: 5D16005

Sequence:

AA33603

Calibration: 1504071

Instrument: OWETSSPEC2

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	Q	DL	LOD	LOQ	Method
57-12-5	Cyanide (total)	0.11	1	J	0.11	0.34	0.42	EPA 9014

KW071315

# INORGANIC ANALYSIS DATA SHEET

EPA 9014

YS25-SB09-0H02-0415

Laboratory: ENCO Orlando

SDG: A502198-WE19

Client: CH2M Hill, Inc. (CH025)

Project: CTO-WE19 Yorktown Site 25-SOILS

Matrix: Soil

Laboratory ID: A502198-04

File ID: 5D16005-1

Sampled: 04/09/15 09:55

Prepared: 04/16/15 08:39

Analyzed: 04/17/15 13:35

Solids: 87.20

Preparation: NO PREP

Initial/Final: 4.94 g / 50 mL

Batch: 5D16005

Sequence:

AA33603

Calibration: 1504071

Instrument: OWETSSPEC2

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	Q	DL	LOD	LOQ	Method
57-12-5	Cyanide (total)	0.26	1	J	0.11	0.33	0.41	EPA 9014

KW071315

# INORGANIC ANALYSIS DATA SHEET

EPA 9014

YS25-SS14-0415

Laboratory: ENCO Orlando

SDG: A502198-WE19

Client: CH2M Hill, Inc. (CH025)

Project: CTO-WE19 Yorktown Site 25-SOILS

Matrix: Soil

Laboratory ID: A502198-05

File ID: 5D16005-1

Sampled: 04/09/15 10:30

Prepared: 04/16/15 08:39

Analyzed: 04/17/15 13:35

Solids: 87.48

Preparation: NO PREP

Initial/Final: 5.01 g / 50 mL

Batch: 5D16005

Sequence: AA33603

Calibration: 1504071

Instrument: OWETSSPEC2

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	Q	DL	LOD	LOQ	Method
57-12-5	Cyanide (total)	<0.33	1	U	0.11	0.33	0.41	EPA 9014

# INORGANIC ANALYSIS DATA SHEET

EPA 9014

YS25-SS14P-0415

Laboratory: ENCO Orlando

SDG: A502198-WE19

Client: CH2M Hill, Inc. (CH025)

Project: CTO-WE19 Yorktown Site 25-SOILS

Matrix: Soil

Laboratory ID: A502198-06

File ID: 5D16005-1

Sampled: 04/09/15 10:35

Prepared: 04/16/15 08:39

Analyzed: 04/17/15 13:35

Solids: 86.22

Preparation: NO PREP

Initial/Final: 4.96 g / 50 mL

Batch: 5D16005

Sequence:

AA33603

Calibration: 1504071

Instrument: OWETSSPEC2

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	Q	DL	LOD	LOQ	Method
57-12-5	Cyanide (total)	<0.34	1	U	0.11	0.34	0.42	EPA 9014

KW071315

# INORGANIC ANALYSIS DATA SHEET

EPA 9014

YS25-SB14-0H02-0415

Laboratory: ENCO Orlando

SDG: A502198-WE19

Client: CH2M Hill, Inc. (CH025)

Project: CTO-WE19 Yorktown Site 25-SOILS

Matrix: Soil

Laboratory ID: A502198-07

File ID: 5D16005-1

Sampled: 04/09/15 11:00

Prepared: 04/16/15 08:39

Analyzed: 04/17/15 13:35

Solids: 86.26

Preparation: NO PREP

Initial/Final: 4.94 g / 50 mL

Batch: 5D16005

Sequence:

AA33603

Calibration: 1504071

Instrument: OWETSSPEC2

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	Q	DL	LOD	LOQ	Method
57-12-5	Cyanide (total)	<0.34	1	U	0.11	0.34	0.42	EPA 9014

KW071315

# INORGANIC ANALYSIS DATA SHEET

EPA 9014

YS25-SB14P-0H02-0415

Laboratory: ENCO Orlando

SDG: A502198-WE19

Client: CH2M Hill, Inc. (CH025)

Project: CTO-WE19 Yorktown Site 25-SOILS

Matrix: Soil

Laboratory ID: A502198-08

File ID: 5D16005-1

Sampled: 04/09/15 11:05

Prepared: 04/16/15 08:39

Analyzed: 04/17/15 13:35

Solids: 86.47

Preparation: NO PREP

Initial/Final: 4.97 g / 50 mL

Batch: 5D16005

Sequence:

AA33603

Calibration: 1504071

Instrument: OWETSSPEC2

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	Q	DL	LOD	LOQ	Method
57-12-5	Cyanide (total)	<0.34	1	U	0.11	0.34	0.42	EPA 9014

KW071315

# INORGANIC ANALYSIS DATA SHEET

EPA 9014

YS25-SS16-0415

Laboratory: ENCO Orlando

SDG: A502198-WE19

Client: CH2M Hill, Inc. (CH025)

Project: CTO-WE19 Yorktown Site 25-SOILS

Matrix: Soil

Laboratory ID: A502198-09

File ID: 5D16005-1

Sampled: 04/09/15 11:50

Prepared: 04/16/15 08:39

Analyzed: 04/17/15 13:35

Solids: 86.06

Preparation: NO PREP

Initial/Final: 4.97 g / 50 mL

Batch: 5D16005

Sequence:

AA33603

Calibration: 1504071

Instrument: OWETSSPEC2

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	Q	DL	LOD	LOQ	Method
57-12-5	Cyanide (total)	0.20	1	J	0.11	0.34	0.42	EPA 9014

KW071315

# INORGANIC ANALYSIS DATA SHEET

EPA 9014

YS25-SB16-0H02-0415

Laboratory: ENCO Orlando

SDG: A502198-WE19

Client: CH2M Hill, Inc. (CH025)

Project: CTO-WE19 Yorktown Site 25-SOILS

Matrix: Soil

Laboratory ID: A502198-10

File ID: 5D16005-1

Sampled: 04/09/15 12:00

Prepared: 04/16/15 08:39

Analyzed: 04/17/15 13:35

Solids: 89.53

Preparation: NO PREP

Initial/Final: 4.94 g / 50 mL

Batch: 5D16005

Sequence:

AA33603

Calibration: 1504071

Instrument: OWETSSPEC2

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	Q	DL	LOD	LOQ	Method
57-12-5	Cyanide (total)	<0.32	1	U	0.11	0.32	0.40	EPA 9014

KW071315

# INORGANIC ANALYSIS DATA SHEET

EPA 9014

YS25-SS17-0415

Laboratory: ENCO Orlando

SDG: A502198-WE19

Client: CH2M Hill, Inc. (CH025)

Project: CTO-WE19 Yorktown Site 25-SOILS

Matrix: Soil

Laboratory ID: A502198-11

File ID: 5D16005-1

Sampled: 04/09/15 13:15

Prepared: 04/16/15 08:39

Analyzed: 04/17/15 13:35

Solids: 85.16

Preparation: NO PREP

Initial/Final: 4.97 g / 50 mL

Batch: 5D16005

Sequence:

AA33603

Calibration: 1504071

Instrument: OWETSSPEC2

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	Q	DL	LOD	LOQ	Method
57-12-5	Cyanide (total)	0.31	1	J	0.11	0.34	0.42	EPA 9014

KW071315

# INORGANIC ANALYSIS DATA SHEET

EPA 9014

YS25-SB17-0H02-0415

Laboratory: ENCO Orlando

SDG: A502198-WE19

Client: CH2M Hill, Inc. (CH025)

Project: CTO-WE19 Yorktown Site 25-SOILS

Matrix: Soil

Laboratory ID: A502198-12

File ID: 5D21009-1

Sampled: 04/09/15 13:25

Prepared: 04/21/15 09:50

Analyzed: 04/21/15 19:01

Solids: 86.74

Preparation: NO PREP

Initial/Final: 4.98 g / 50 mL

Batch: 5D21009

Sequence:

AA33641

Calibration: 1504085

Instrument: OWETSSPEC2

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	Q	DL	LOD	LOQ	Method
57-12-5	Cyanide (total)	<0.33	1	U	0.11	0.33	0.42	EPA 9014

KW071315

# INORGANIC ANALYSIS DATA SHEET

EPA 7471B

YS25-SS08-0415

Laboratory: ENCO Orlando

SDG: A502198-WE19

Client: CH2M Hill, Inc. (CH025)

Project: CTO-WE19 Yorktown Site 25-SOILS

Matrix: Soil

Laboratory ID: A502198-01

File ID: Hg 5D13011 010 s-032

Sampled: 04/09/15 09:00

Prepared: 04/13/15 11:22

Analyzed: 04/14/15 08:04

Solids: 85.54

Preparation: EPA 7471B

Initial/Final: 0.31 g / 36 mL

Batch: 5D13011

Sequence: AA33420

Calibration: 1504055

Instrument: OMHG1

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	Q	DL	LOD	LOQ	Method
7439-97-6	Mercury	0.0373	1		0.00456	0.0137	0.0245	EPA 7471B

KW071315

# INORGANIC ANALYSIS DATA SHEET

EPA 7471B

YS25-SB08-0H02-0415

Laboratory: ENCO Orlando

SDG: A502198-WE19

Client: CH2M Hill, Inc. (CH025)

Project: CTO-WE19 Yorktown Site 25-SOILS

Matrix: Soil

Laboratory ID: A502198-02

File ID: Hg 5D13011 010 s-033

Sampled: 04/09/15 09:10

Prepared: 04/13/15 11:22

Analyzed: 04/14/15 08:08

Solids: 90.83

Preparation: EPA 7471B

Initial/Final: 0.31 g / 36 mL

Batch: 5D13011

Sequence: AA33420

Calibration: 1504055

Instrument: OMHG1

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	Q	DL	LOD	LOQ	Method
7439-97-6	Mercury	0.0222	1	J	0.00429	0.0129	0.0231	EPA 7471B

KW071315

# INORGANIC ANALYSIS DATA SHEET

EPA 7471B

YS25-SS09-0415

Laboratory: ENCO Orlando

SDG: A502198-WE19

Client: CH2M Hill, Inc. (CH025)

Project: CTO-WE19 Yorktown Site 25-SOILS

Matrix: Soil

Laboratory ID: A502198-03

File ID: Hg 5D13011 010 s-037

Sampled: 04/09/15 09:45

Prepared: 04/13/15 11:22

Analyzed: 04/14/15 08:20

Solids: 85.03

Preparation: EPA 7471B

Initial/Final: 0.29 g / 36 mL

Batch: 5D13011

Sequence: AA33420

Calibration: 1504055

Instrument: OMHG1

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	Q	DL	LOD	LOQ	Method
7439-97-6	Mercury	0.0228	1	J	0.00459	0.0138	0.0247	EPA 7471B

KW071315

# INORGANIC ANALYSIS DATA SHEET

EPA 7471B

YS25-SB09-0H02-0415

Laboratory: ENCO Orlando

SDG: A502198-WE19

Client: CH2M Hill, Inc. (CH025)

Project: CTO-WE19 Yorktown Site 25-SOILS

Matrix: Soil

Laboratory ID: A502198-04

File ID: Hg 5D13011 010 s-038

Sampled: 04/09/15 09:55

Prepared: 04/13/15 11:22

Analyzed: 04/14/15 08:24

Solids: 87.20

Preparation: EPA 7471B

Initial/Final: 0.3 g / 36 mL

Batch: 5D13011

Sequence:

AA33420

Calibration: 1504055

Instrument: OMHG1

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	Q	DL	LOD	LOQ	Method
7439-97-6	Mercury	0.0624	1		0.00447	0.0134	0.0241	EPA 7471B

KW071315

# INORGANIC ANALYSIS DATA SHEET

EPA 7471B

YS25-SS14-0415

Laboratory: ENCO Orlando

SDG: A502198-WE19

Client: CH2M Hill, Inc. (CH025)

Project: CTO-WE19 Yorktown Site 25-SOILS

Matrix: Soil

Laboratory ID: A502198-05

File ID: Hg 5D13011 010 s-039

Sampled: 04/09/15 10:30

Prepared: 04/13/15 11:22

Analyzed: 04/14/15 08:27

Solids: 87.48

Preparation: EPA 7471B

Initial/Final: 0.31 g / 36 mL

Batch: 5D13011

Sequence:

AA33420

Calibration: 1504055

Instrument: OMHG1

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	Q	DL	LOD	LOQ	Method
7439-97-6	Mercury	0.0247	1		0.00446	0.0134	0.0240	EPA 7471B

KW071315

# INORGANIC ANALYSIS DATA SHEET

EPA 7471B

YS25-SS14P-0415

Laboratory: ENCO Orlando

SDG: A502198-WE19

Client: CH2M Hill, Inc. (CH025)

Project: CTO-WE19 Yorktown Site 25-SOILS

Matrix: Soil

Laboratory ID: A502198-06

File ID: Hg 5D13011 010 s-040

Sampled: 04/09/15 10:35

Prepared: 04/13/15 11:22

Analyzed: 04/14/15 08:31

Solids: 86.22

Preparation: EPA 7471B

Initial/Final: 0.35 g / 36 mL

Batch: 5D13011

Sequence:

AA33420

Calibration: 1504055

Instrument: OMHG1

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	Q	DL	LOD	LOQ	Method
7439-97-6	Mercury	0.0237	1		0.00388	0.0116	0.0209	EPA 7471B

KW071315

# INORGANIC ANALYSIS DATA SHEET

EPA 7471B

YS25-SB14-0H02-0415

Laboratory: ENCO Orlando

SDG: A502198-WE19

Client: CH2M Hill, Inc. (CH025)

Project: CTO-WE19 Yorktown Site 25-SOILS

Matrix: Soil

Laboratory ID: A502198-07

File ID: Hg 5D13011 010 s-042

Sampled: 04/09/15 11:00

Prepared: 04/13/15 11:22

Analyzed: 04/14/15 08:37

Solids: 86.26

Preparation: EPA 7471B

Initial/Final: 0.35 g / 36 mL

Batch: 5D13011

Sequence:

AA33420

Calibration: 1504055

Instrument: OMHG1

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	Q	DL	LOD	LOQ	Method
7439-97-6	Mercury	0.0296	1		0.00388	0.0116	0.0209	EPA 7471B

KW071315

# INORGANIC ANALYSIS DATA SHEET

EPA 7471B

YS25-SB14P-0H02-0415

Laboratory: ENCO Orlando

SDG: A502198-WE19

Client: CH2M Hill, Inc. (CH025)

Project: CTO-WE19 Yorktown Site 25-SOILS

Matrix: Soil

Laboratory ID: A502198-08

File ID: Hg 5D13011 010 s-043

Sampled: 04/09/15 11:05

Prepared: 04/13/15 11:22

Analyzed: 04/14/15 08:40

Solids: 86.47

Preparation: EPA 7471B

Initial/Final: 0.33 g / 36 mL

Batch: 5D13011

Sequence:

AA33420

Calibration: 1504055

Instrument: OMHG1

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	Q	DL	LOD	LOQ	Method
7439-97-6	Mercury	0.0370	1		0.00410	0.0123	0.0221	EPA 7471B

KW071315

# INORGANIC ANALYSIS DATA SHEET

EPA 7471B

YS25-SS16-0415

Laboratory: ENCO Orlando

SDG: A502198-WE19

Client: CH2M Hill, Inc. (CH025)

Project: CTO-WE19 Yorktown Site 25-SOILS

Matrix: Soil

Laboratory ID: A502198-09

File ID: Hg 5D13011 010 s-044

Sampled: 04/09/15 11:50

Prepared: 04/13/15 11:22

Analyzed: 04/14/15 08:44

Solids: 86.06

Preparation: EPA 7471B

Initial/Final: 0.32 g / 36 mL

Batch: 5D13011

Sequence:

AA33420

Calibration: 1504055

Instrument: OMHG1

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	Q	DL	LOD	LOQ	Method
7439-97-6	Mercury	0.0431	1		0.00453	0.0136	0.0244	EPA 7471B

KW071315

# INORGANIC ANALYSIS DATA SHEET

EPA 7471B

YS25-SB16-0H02-0415

Laboratory: ENCO Orlando

SDG: A502198-WE19

Client: CH2M Hill, Inc. (CH025)

Project: CTO-WE19 Yorktown Site 25-SOILS

Matrix: Soil

Laboratory ID: A502198-10

File ID: Hg 5D13011 010 s-045

Sampled: 04/09/15 12:00

Prepared: 04/13/15 11:22

Analyzed: 04/14/15 08:47

Solids: 89.53

Preparation: EPA 7471B

Initial/Final: 0.35 g / 36 mL

Batch: 5D13011

Sequence:

AA33420

Calibration: 1504055

Instrument: OMHG1

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	Q	DL	LOD	LOQ	Method
7439-97-6	Mercury	0.0336	1		0.00373	0.0112	0.0201	EPA 7471B

KW071315

# INORGANIC ANALYSIS DATA SHEET

EPA 7471B

YS25-SS17-0415

Laboratory: ENCO Orlando

SDG: A502198-WE19

Client: CH2M Hill, Inc. (CH025)

Project: CTO-WE19 Yorktown Site 25-SOILS

Matrix: Soil

Laboratory ID: A502198-11

File ID: Hg 5D13011 010 s-049

Sampled: 04/09/15 13:15

Prepared: 04/13/15 11:22

Analyzed: 04/14/15 09:00

Solids: 85.16

Preparation: EPA 7471B

Initial/Final: 0.31 g / 36 mL

Batch: 5D13011

Sequence:

AA33420

Calibration: 1504055

Instrument: OMHG1

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	Q	DL	LOD	LOQ	Method
7439-97-6	Mercury	0.0702	1		0.00458	0.0137	0.0247	EPA 7471B

KW071315

# INORGANIC ANALYSIS DATA SHEET

**EPA 7471B**

YS25-SB17-0H02-0415

Laboratory: ENCO Orlando

SDG: A502198-WE19

Client: CH2M Hill, Inc. (CH025)

Project: CTO-WE19 Yorktown Site 25-SOILS

Matrix: Soil

Laboratory ID: A502198-12

File ID: Hg 5D13011 010 s-050

Sampled: 04/09/15 13:25

Prepared: 04/13/15 11:22

Analyzed: 04/14/15 09:04

Solids: 86.74

Preparation: EPA 7471B

Initial/Final: 0.34 g / 36 mL

Batch: 5D13011

Sequence: AA33420

Calibration: 1504055

Instrument: OMHG1

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	Q	DL	LOD	LOQ	Method
7439-97-6	Mercury	0.0331	1		0.00397	0.0119	0.0214	EPA 7471B

# INORGANIC ANALYSIS DATA SHEET

EPA 6010C

A502198-01 (YS25-SS08-0415)

Laboratory: ENCO Jacksonville

SDG: A502198-WE19

Client: ENCO Orlando

Project: CTO-WE19 Yorktown Site 25-SOILS

Matrix: Soil

Laboratory ID: B501678-01

File ID: 042015a-026

Sampled: 04/09/15 09:00

Prepared: 04/14/15 12:22

Analyzed: 04/20/15 11:17

Solids: 85.54

Preparation: EPA 3050B

Initial/Final: 0.66 g / 50 mL

Batch: 5D14004

Sequence:

BA16540

Calibration: 1504004

Instrument: JMICP2

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	Q	DL	LOD	LOQ	Method
7429-90-5	Aluminum	4510	1		2.30	17.7	35.4	EPA 6010C
7440-36-0	Antimony	0.410	1	J	0.354	1.77	3.54	EPA 6010C
7440-38-2	Arsenic	1.63	1	J	0.762	1.77	3.54	EPA 6010C
7440-39-3	Barium	32.6	1		0.0354	0.443	0.886	EPA 6010C
7440-41-7	Beryllium	0.505	1		0.0138	0.0443	0.0886	EPA 6010C
7440-43-9	Cadmium	1.44	1		0.0113	0.177	0.354	EPA 6010C
7440-70-2	Calcium	1580	1		3.37	22.1	44.3	EPA 6010C
7440-47-3	Chromium	8.08	1		0.0390	0.443	0.886	EPA 6010C
7440-48-4	Cobalt	3.20	1	J	0.0744	0.886	3.54	EPA 6010C
7440-50-8	Copper	8.54	1		0.195	0.443	0.886	EPA 6010C
7439-89-6	Iron	7970	1		0.531	4.43	8.86	EPA 6010C
7439-92-1	Lead	74.4	1		0.213	1.77	3.54	EPA 6010C
7439-95-4	Magnesium	1360	1		2.13	22.1	44.3	EPA 6010C
7439-96-5	Manganese	222	1		0.0131	0.886	1.77	EPA 6010C
7440-02-0	Nickel	4.78	1		0.0726	0.443	0.886	EPA 6010C
7440-09-7	Potassium	361	1		6.73	44.3	88.6	EPA 6010C
7782-49-2	Selenium	<1.77	1	U	0.283	1.77	3.54	EPA 6010C
7440-22-4	Silver	<0.443	1	U	0.0868	0.443	0.886	EPA 6010C
7440-23-5	Sodium <b>B - EBL</b>	25.0	1	<del>J</del>	4.25	22.1	44.3	EPA 6010C
7440-28-0	Thallium	<3.54	1	U	0.514	3.54	7.08	EPA 6010C
7440-62-2	Vanadium	15.2	1		0.0744	0.886	1.77	EPA 6010C
7440-66-6	Zinc	130	1		0.832	1.77	3.54	EPA 6010C

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# INORGANIC ANALYSIS DATA SHEET

EPA 6010C

A502198-02 (YS25-SB08-0H02-0415)

Laboratory: ENCO Jacksonville

SDG: A502198-WE19

Client: ENCO Orlando

Project: CTO-WE19 Yorktown Site 25-SOILS

Matrix: Soil

Laboratory ID: B501678-02

File ID: 042015a-027

Sampled: 04/09/15 09:10

Prepared: 04/14/15 12:22

Analyzed: 04/20/15 11:19

Solids: 90.83

Preparation: EPA 3050B

Initial/Final: 0.73 g / 50 mL

Batch: 5D14004

Sequence:

BA16540

Calibration: 1504004

Instrument: JM1CP2

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	Q	DL	LOD	LOQ	Method
7429-90-5	Aluminum	4360	1		1.96	15.1	30.2	EPA 6010C
7440-36-0	Antimony	<1.51	1	U	0.302	1.51	3.02	EPA 6010C
7440-38-2	Arsenic	2.38	1	J	0.649	1.51	3.02	EPA 6010C
7440-39-3	Barium	21.4	1		0.0302	0.377	0.754	EPA 6010C
7440-41-7	Beryllium	0.278	1		0.0118	0.0377	0.0754	EPA 6010C
7440-43-9	Cadmium	0.115	1	J	0.00965	0.151	0.302	EPA 6010C
7440-70-2	Calcium	571	1		2.87	18.9	37.7	EPA 6010C
7440-47-3	Chromium	5.64	1		0.0332	0.377	0.754	EPA 6010C
7440-48-4	Cobalt	1.69	1	J	0.0633	0.754	3.02	EPA 6010C
7440-50-8	Copper	2.85	1		0.166	0.377	0.754	EPA 6010C
7439-89-6	Iron	5930	1		0.452	3.77	7.54	EPA 6010C
7439-92-1	Lead	9.10	1		0.181	1.51	3.02	EPA 6010C
7439-95-4	Magnesium	314	1		1.81	18.9	37.7	EPA 6010C
7439-96-5	Manganese	107	1		0.0112	0.754	1.51	EPA 6010C
7440-02-0	Nickel	2.77	1		0.0618	0.377	0.754	EPA 6010C
7440-09-7	Potassium	208	1		5.73	37.7	75.4	EPA 6010C
7782-49-2	Selenium	<1.51	1	U	0.241	1.51	3.02	EPA 6010C
7440-22-4	Silver	<0.377	1	U	0.0739	0.377	0.754	EPA 6010C
7440-23-5	Sodium <b>B - EBL</b>	9.68	1	<b>-J-</b>	3.62	18.9	37.7	EPA 6010C
7440-28-0	Thallium <b>B - EBL</b>	0.589	1	<b>-J-</b>	0.437	3.02	6.03	EPA 6010C
7440-62-2	Vanadium	9.10	1		0.0633	0.754	1.51	EPA 6010C
7440-66-6	Zinc	16.9	1		0.709	1.51	3.02	EPA 6010C

KW071315

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# INORGANIC ANALYSIS DATA SHEET

EPA 6010C

A502198-03 (YS25-SS09-0415)

Laboratory: ENCO Jacksonville

SDG: A502198-WE19

Client: ENCO Orlando

Project: CTO-WE19 Yorktown Site 25-SOILS

Matrix: Soil

Laboratory ID: B501678-03

File ID: 042015a-028

Sampled: 04/09/15 09:45

Prepared: 04/14/15 12:22

Analyzed: 04/20/15 11:21

Solids: 85.03

Preparation: EPA 3050B

Initial/Final: 0.84 g / 50 mL

Batch: 5D14004

Sequence:

BA16540

Calibration: 1504004

Instrument: JMICP2

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	Q	DL	LOD	LOQ	Method
7429-90-5	Aluminum	8830	1		1.82	14.0	28.0	EPA 6010C
7440-36-0	Antimony	<1.40	1	U	0.280	1.40	2.80	EPA 6010C
7440-38-2	Arsenic	<1.40	1	U	0.602	1.40	2.80	EPA 6010C
7440-39-3	Barium	48.1	1		0.0280	0.350	0.700	EPA 6010C
7440-41-7	Beryllium	0.399	1		0.0109	0.0350	0.0700	EPA 6010C
7440-43-9	Cadmium	1.48	1		0.00896	0.140	0.280	EPA 6010C
7440-70-2	Calcium	2950	1		2.66	17.5	35.0	EPA 6010C
7440-47-3	Chromium	14.4	1		0.0308	0.350	0.700	EPA 6010C
7440-48-4	Cobalt	7.10	1		0.0588	0.700	2.80	EPA 6010C
7440-50-8	Copper	25.3	1		0.154	0.350	0.700	EPA 6010C
7439-89-6	Iron	14500	1		0.420	3.50	7.00	EPA 6010C
7439-92-1	Lead	132	1		0.168	1.40	2.80	EPA 6010C
7439-95-4	Magnesium	5090	1		1.68	17.5	35.0	EPA 6010C
7439-96-5	Manganese	345	1		0.0104	0.700	1.40	EPA 6010C
7440-02-0	Nickel	8.41	1		0.0574	0.350	0.700	EPA 6010C
7440-09-7	Potassium	441	1		5.32	35.0	70.0	EPA 6010C
7782-49-2	Selenium	<1.40	1	U	0.224	1.40	2.80	EPA 6010C
7440-22-4	Silver	<0.350	1	U	0.0686	0.350	0.700	EPA 6010C
7440-23-5	Sodium <b>B - EBL</b>	50.8	1		3.36	17.5	35.0	EPA 6010C
7440-28-0	Thallium	<2.80	1	U	0.406	2.80	5.60	EPA 6010C
7440-62-2	Vanadium	24.2	1		0.0588	0.700	1.40	EPA 6010C
7440-66-6	Zinc	195	1		0.658	1.40	2.80	EPA 6010C

KW071315

# INORGANIC ANALYSIS DATA SHEET

EPA 6010C

A502198-04 (YS25-SB09-0H02-0415)

Laboratory: ENCO Jacksonville

SDG: A502198-WE19

Client: ENCO Orlando

Project: CTO-WE19 Yorktown Site 25-SOILS

Matrix: Soil

Laboratory ID: B501678-04

File ID: 042015a-029

Sampled: 04/09/15 09:55

Prepared: 04/14/15 12:22

Analyzed: 04/20/15 11:23

Solids: 87.20

Preparation: EPA 3050B

Initial/Final: 0.66 g / 50 mL

Batch: 5D14004

Sequence:

BA16540

Calibration: 1504004

Instrument: JMICP2

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	Q	DL	LOD	LOQ	Method
7429-90-5	Aluminum	3090	1		2.26	17.4	34.7	EPA 6010C
7440-36-0	Antimony	<1.74	1	U	0.347	1.74	3.47	EPA 6010C
7440-38-2	Arsenic	4.59	1		0.747	1.74	3.47	EPA 6010C
7440-39-3	Barium	15.9	1		0.0347	0.434	0.869	EPA 6010C
7440-41-7	Beryllium	0.243	1		0.0136	0.0434	0.0869	EPA 6010C
7440-43-9	Cadmium	0.547	1		0.0111	0.174	0.347	EPA 6010C
7440-70-2	Calcium	382	1		3.30	21.7	43.4	EPA 6010C
7440-47-3	Chromium	9.61	1		0.0382	0.434	0.869	EPA 6010C
7440-48-4	Cobalt	1.71	1	J	0.0730	0.869	3.47	EPA 6010C
7440-50-8	Copper	11.7	1		0.191	0.434	0.869	EPA 6010C
7439-89-6	Iron	5640	1		0.521	4.34	8.69	EPA 6010C
7439-92-1	Lead	46.4	1		0.208	1.74	3.47	EPA 6010C
7439-95-4	Magnesium	218	1		2.08	21.7	43.4	EPA 6010C
7439-96-5	Manganese	118	1		0.0129	0.869	1.74	EPA 6010C
7440-02-0	Nickel	2.67	1		0.0712	0.434	0.869	EPA 6010C
7440-09-7	Potassium	195	1		6.60	43.4	86.9	EPA 6010C
7782-49-2	Selenium	<1.74	1	U	0.278	1.74	3.47	EPA 6010C
7440-22-4	Silver	<0.434	1	U	0.0851	0.434	0.869	EPA 6010C
7440-23-5	Sodium <b>B - EBL</b>	14.8	1	<del>J</del>	4.17	21.7	43.4	EPA 6010C
7440-28-0	Thallium	<3.47	1	U	0.504	3.47	6.95	EPA 6010C
7440-62-2	Vanadium	11.8	1		0.0730	0.869	1.74	EPA 6010C
7440-66-6	Zinc	117	1		0.817	1.74	3.47	EPA 6010C

KW071315

# INORGANIC ANALYSIS DATA SHEET

EPA 6010C

A502198-05 (YS25-SS14-0415)

Laboratory: ENCO Jacksonville

SDG: A502198-WE19

Client: ENCO Orlando

Project: CTO-WE19 Yorktown Site 25-SOILS

Matrix: Soil

Laboratory ID: B501678-05

File ID: 042015a-030

Sampled: 04/09/15 10:30

Prepared: 04/14/15 12:22

Analyzed: 04/20/15 11:25

Solids: 87.48

Preparation: EPA 3050B

Initial/Final: 0.68 g / 50 mL

Batch: 5D14004

Sequence: BA16540

Calibration: 1504004

Instrument: JMICP2

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	Q	DL	LOD	LOQ	Method
7429-90-5	Aluminum	8440	1		2.19	16.8	33.6	EPA 6010C
7440-36-0	Antimony	<1.68	1	U	0.336	1.68	3.36	EPA 6010C
7440-38-2	Arsenic	2.59	1	J	0.723	1.68	3.36	EPA 6010C
7440-39-3	Barium	59.1	1		0.0336	0.420	0.841	EPA 6010C
7440-41-7	Beryllium	0.530	1		0.0131	0.0420	0.0841	EPA 6010C
7440-43-9	Cadmium	0.340	1		0.0108	0.168	0.336	EPA 6010C
7440-70-2	Calcium <b>J - FD</b>	1670	1		3.19	21.0	42.0	EPA 6010C
7440-47-3	Chromium	13.0	1		0.0370	0.420	0.841	EPA 6010C
7440-48-4	Cobalt	5.33	1		0.0706	0.841	3.36	EPA 6010C
7440-50-8	Copper	9.37	1		0.185	0.420	0.841	EPA 6010C
7439-89-6	Iron	12700	1		0.504	4.20	8.41	EPA 6010C
7439-92-1	Lead <b>J - FD</b>	34.0	1		0.202	1.68	3.36	EPA 6010C
7439-95-4	Magnesium	2350	1		2.02	21.0	42.0	EPA 6010C
7439-96-5	Manganese	190	1		0.0124	0.841	1.68	EPA 6010C
7440-02-0	Nickel	7.33	1		0.0689	0.420	0.841	EPA 6010C
7440-09-7	Potassium <b>J - FD</b>	603	1		6.39	42.0	84.1	EPA 6010C
7782-49-2	Selenium	<1.68	1	U	0.269	1.68	3.36	EPA 6010C
7440-22-4	Silver	<0.420	1	U	0.0824	0.420	0.841	EPA 6010C
7440-23-5	Sodium <b>B - EBL</b>	29.1	1	<b>-J-</b>	4.03	21.0	42.0	EPA 6010C
7440-28-0	Thallium	<3.36	1	U	0.488	3.36	6.72	EPA 6010C
7440-62-2	Vanadium	20.2	1		0.0706	0.841	1.68	EPA 6010C
7440-66-6	Zinc	81.5	1		0.790	1.68	3.36	EPA 6010C

KW071315

# INORGANIC ANALYSIS DATA SHEET

EPA 6010C

A502198-06 (YS25-SS14P-0415)

Laboratory: ENCO Jacksonville

SDG: A502198-WE19

Client: ENCO Orlando

Project: CTO-WE19 Yorktown Site 25-SOILS

Matrix: Soil

Laboratory ID: B501678-06

File ID: 042015a-031

Sampled: 04/09/15 10:35

Prepared: 04/14/15 12:22

Analyzed: 04/20/15 11:27

Solids: 86.22

Preparation: EPA 3050B

Initial/Final: 0.79 g / 50 mL

Batch: 5D14004

Sequence: BA16540

Calibration: 1504004

Instrument: JM1CP2

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	Q	DL	LOD	LOQ	Method
7429-90-5	Aluminum	8000	1		1.91	14.7	29.4	EPA 6010C
7440-36-0	Antimony	<1.47	1	U	0.294	1.47	2.94	EPA 6010C
7440-38-2	Arsenic	1.46	1	J	0.631	1.47	2.94	EPA 6010C
7440-39-3	Barium	53.2	1		0.0294	0.367	0.734	EPA 6010C
7440-41-7	Beryllium	0.429	1		0.0115	0.0367	0.0734	EPA 6010C
7440-43-9	Cadmium	0.529	1		0.00940	0.147	0.294	EPA 6010C
7440-70-2	Calcium <b>J - FD</b>	3390	1		2.79	18.4	36.7	EPA 6010C
7440-47-3	Chromium	11.1	1		0.0323	0.367	0.734	EPA 6010C
7440-48-4	Cobalt	7.19	1		0.0617	0.734	2.94	EPA 6010C
7440-50-8	Copper	12.8	1		0.161	0.367	0.734	EPA 6010C
7439-89-6	Iron	12600	1		0.440	3.67	7.34	EPA 6010C
7439-92-1	Lead <b>J - FD</b>	19.5	1		0.176	1.47	2.94	EPA 6010C
7439-95-4	Magnesium	3360	1		1.76	18.4	36.7	EPA 6010C
7439-96-5	Manganese	207	1		0.0109	0.734	1.47	EPA 6010C
7440-02-0	Nickel	7.53	1		0.0602	0.367	0.734	EPA 6010C
7440-09-7	Potassium <b>J - FD</b>	889	1		5.58	36.7	73.4	EPA 6010C
7782-49-2	Selenium	<1.47	1	U	0.235	1.47	2.94	EPA 6010C
7440-22-4	Silver	<0.367	1	U	0.0719	0.367	0.734	EPA 6010C
7440-23-5	Sodium <b>B - EBL</b>	44.5	1		3.52	18.4	36.7	EPA 6010C
7440-28-0	Thallium	<2.94	1	U	0.426	2.94	5.87	EPA 6010C
7440-62-2	Vanadium	21.5	1		0.0617	0.734	1.47	EPA 6010C
7440-66-6	Zinc	57.2	1		0.690	1.47	2.94	EPA 6010C

KW071315

# INORGANIC ANALYSIS DATA SHEET

EPA 6010C

A502198-07 (YS25-SB14-0H02-0415)

Laboratory: ENCO Jacksonville

SDG: A502198-WE19

Client: ENCO Orlando

Project: CTO-WE19 Yorktown Site 25-SOILS

Matrix: Soil

Laboratory ID: B501678-07

File ID: 042015a-032

Sampled: 04/09/15 11:00

Prepared: 04/14/15 12:22

Analyzed: 04/20/15 11:28

Solids: 86.26

Preparation: EPA 3050B

Initial/Final: 0.69 g / 50 mL

Batch: 5D14004

Sequence:

BA16540

Calibration: 1504004

Instrument: JM1CP2

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	Q	DL	LOD	LOQ	Method
7429-90-5	Aluminum	10400	1		2.18	16.8	33.6	EPA 6010C
7440-36-0	Antimony	<1.68	1	U	0.336	1.68	3.36	EPA 6010C
7440-38-2	Arsenic	3.86	1		0.722	1.68	3.36	EPA 6010C
7440-39-3	Barium	84.2	1		0.0336	0.420	0.840	EPA 6010C
7440-41-7	Beryllium	0.563	1		0.0131	0.0420	0.0840	EPA 6010C
7440-43-9	Cadmium	0.374	1		0.0108	0.168	0.336	EPA 6010C
7440-70-2	Calcium	1430	1		3.19	21.0	42.0	EPA 6010C
7440-47-3	Chromium	14.2	1		0.0370	0.420	0.840	EPA 6010C
7440-48-4	Cobalt	5.08	1		0.0706	0.840	3.36	EPA 6010C
7440-50-8	Copper <b>J - FD</b>	8.06	1		0.185	0.420	0.840	EPA 6010C
7439-89-6	Iron	15600	1		0.504	4.20	8.40	EPA 6010C
7439-92-1	Lead	20.6	1		0.202	1.68	3.36	EPA 6010C
7439-95-4	Magnesium	1140	1		2.02	21.0	42.0	EPA 6010C
7439-96-5	Manganese	157	1		0.0124	0.840	1.68	EPA 6010C
7440-02-0	Nickel	6.69	1		0.0689	0.420	0.840	EPA 6010C
7440-09-7	Potassium	665	1		6.38	42.0	84.0	EPA 6010C
7782-49-2	Selenium	<1.68	1	U	0.269	1.68	3.36	EPA 6010C
7440-22-4	Silver	<0.420	1	U	0.0823	0.420	0.840	EPA 6010C
7440-23-5	Sodium <b>B - EBL</b>	33.7	1	<b>-J-</b>	4.03	21.0	42.0	EPA 6010C
7440-28-0	Thallium	<3.36	1	U	0.487	3.36	6.72	EPA 6010C
7440-62-2	Vanadium	25.1	1		0.0706	0.840	1.68	EPA 6010C
7440-66-6	Zinc	55.0	1		0.790	1.68	3.36	EPA 6010C

KW071315

**INORGANIC ANALYSIS DATA SHEET**  
**EPA 6010C**

A502198-08  
(YS25-SB14P-0H02-0415)

Laboratory: ENCO Jacksonville

SDG: A502198-WE19

Client: ENCO Orlando

Project: CTO-WE19 Yorktown Site 25-SOILS

Matrix: Soil

Laboratory ID: B501678-08

File ID: 042015a-033

Sampled: 04/09/15 11:05

Prepared: 04/14/15 12:22

Analyzed: 04/20/15 11:30

Solids: 86.47

Preparation: EPA 3050B

Initial/Final: 0.64 g / 50 mL

Batch: 5D14004

Sequence:

BA16540

Calibration: 1504004

Instrument: JMICP2

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	Q	DL	LOD	LOQ	Method
7429-90-5	Aluminum	9610	1		2.35	18.1	36.1	EPA 6010C
7440-36-0	Antimony	<1.81	1	U	0.361	1.81	3.61	EPA 6010C
7440-38-2	Arsenic	3.41	1	J	0.777	1.81	3.61	EPA 6010C
7440-39-3	Barium	72.8	1		0.0361	0.452	0.904	EPA 6010C
7440-41-7	Beryllium	0.566	1		0.0141	0.0452	0.0904	EPA 6010C
7440-43-9	Cadmium	0.211	1	J	0.0116	0.181	0.361	EPA 6010C
7440-70-2	Calcium	1430	1		3.43	22.6	45.2	EPA 6010C
7440-47-3	Chromium	13.1	1		0.0398	0.452	0.904	EPA 6010C
7440-48-4	Cobalt	5.15	1		0.0759	0.904	3.61	EPA 6010C
7440-50-8	Copper <b>J - FD</b>	5.13	1		0.199	0.452	0.904	EPA 6010C
7439-89-6	Iron	14400	1		0.542	4.52	9.04	EPA 6010C
7439-92-1	Lead	16.2	1		0.217	1.81	3.61	EPA 6010C
7439-95-4	Magnesium	1200	1		2.17	22.6	45.2	EPA 6010C
7439-96-5	Manganese	146	1		0.0134	0.904	1.81	EPA 6010C
7440-02-0	Nickel	6.46	1		0.0741	0.452	0.904	EPA 6010C
7440-09-7	Potassium	687	1		6.87	45.2	90.4	EPA 6010C
7782-49-2	Selenium	<1.81	1	U	0.289	1.81	3.61	EPA 6010C
7440-22-4	Silver	<0.452	1	U	0.0885	0.452	0.904	EPA 6010C
7440-23-5	Sodium <b>B - EBL</b>	30.1	1	<b>-J-</b>	4.34	22.6	45.2	EPA 6010C
7440-28-0	Thallium	<3.61	1	U	0.524	3.61	7.23	EPA 6010C
7440-62-2	Vanadium	22.6	1		0.0759	0.904	1.81	EPA 6010C
7440-66-6	Zinc	44.1	1		0.849	1.81	3.61	EPA 6010C

KW071315

# INORGANIC ANALYSIS DATA SHEET

EPA 6010C

A502198-09 (YS25-SS16-0415)

Laboratory: ENCO Jacksonville

SDG: A502198-WE19

Client: ENCO Orlando

Project: CTO-WE19 Yorktown Site 25-SOILS

Matrix: Soil

Laboratory ID: B501678-09

File ID: 042015a-036

Sampled: 04/09/15 11:50

Prepared: 04/14/15 12:22

Analyzed: 04/20/15 11:37

Solids: 86.06

Preparation: EPA 3050B

Initial/Final: 0.68 g / 50 mL

Batch: 5D14004

Sequence: BA16540

Calibration: 1504004

Instrument: JM1CP2

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	Q	DL	LOD	LOQ	Method
7429-90-5	Aluminum	7890	1		2.22	17.1	34.2	EPA 6010C
7440-36-0	Antimony	<1.71	1	U	0.342	1.71	3.42	EPA 6010C
7440-38-2	Arsenic	3.90	1		0.735	1.71	3.42	EPA 6010C
7440-39-3	Barium	46.0	1		0.0342	0.427	0.854	EPA 6010C
7440-41-7	Beryllium	0.707	1		0.0133	0.0427	0.0854	EPA 6010C
7440-43-9	Cadmium	0.970	1		0.0109	0.171	0.342	EPA 6010C
7440-70-2	Calcium	1770	1		3.25	21.4	42.7	EPA 6010C
7440-47-3	Chromium	10.1	1		0.0376	0.427	0.854	EPA 6010C
7440-48-4	Cobalt	3.93	1		0.0718	0.854	3.42	EPA 6010C
7440-50-8	Copper	16.7	1		0.188	0.427	0.854	EPA 6010C
7439-89-6	Iron	10800	1		0.513	4.27	8.54	EPA 6010C
7439-92-1	Lead	28.6	1		0.205	1.71	3.42	EPA 6010C
7439-95-4	Magnesium	904	1		2.05	21.4	42.7	EPA 6010C
7439-96-5	Manganese	174	1		0.0126	0.854	1.71	EPA 6010C
7440-02-0	Nickel	5.40	1		0.0701	0.427	0.854	EPA 6010C
7440-09-7	Potassium	473	1		6.49	42.7	85.4	EPA 6010C
7782-49-2	Selenium	<1.71	1	U	0.273	1.71	3.42	EPA 6010C
7440-22-4	Silver	<0.427	1	U	0.0837	0.427	0.854	EPA 6010C
7440-23-5	Sodium <b>B - EBL</b>	24.7	1	<del>U</del>	4.10	21.4	42.7	EPA 6010C
7440-28-0	Thallium	<3.42	1	U	0.496	3.42	6.84	EPA 6010C
7440-62-2	Vanadium	18.4	1		0.0718	0.854	1.71	EPA 6010C
7440-66-6	Zinc	77.3	1		0.803	1.71	3.42	EPA 6010C

KW071315

# INORGANIC ANALYSIS DATA SHEET

EPA 6010C

A502198-10 (YS25-SB16-0H02-0415)

Laboratory: ENCO Jacksonville

SDG: A502198-WE19

Client: ENCO Orlando

Project: CTO-WE19 Yorktown Site 25-SOILS

Matrix: Soil

Laboratory ID: B501678-10

File ID: 042015a-037

Sampled: 04/09/15 12:00

Prepared: 04/14/15 12:22

Analyzed: 04/20/15 11:39

Solids: 89.53

Preparation: EPA 3050B

Initial/Final: 0.69 g / 50 mL

Batch: 5D14004

Sequence: BA16540

Calibration: 1504004

Instrument: JM1CP2

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	Q	DL	LOD	LOQ	Method
7429-90-5	Aluminum	9800	1		2.10	16.2	32.4	EPA 6010C
7440-36-0	Antimony	<1.62	1	U	0.324	1.62	3.24	EPA 6010C
7440-38-2	Arsenic	4.24	1		0.696	1.62	3.24	EPA 6010C
7440-39-3	Barium	52.4	1		0.0324	0.405	0.809	EPA 6010C
7440-41-7	Beryllium	0.542	1		0.0126	0.0405	0.0809	EPA 6010C
7440-43-9	Cadmium	0.125	1	J	0.0104	0.162	0.324	EPA 6010C
7440-70-2	Calcium	1220	1		3.08	20.2	40.5	EPA 6010C
7440-47-3	Chromium	11.8	1		0.0356	0.405	0.809	EPA 6010C
7440-48-4	Cobalt	4.33	1		0.0680	0.809	3.24	EPA 6010C
7440-50-8	Copper	7.87	1		0.178	0.405	0.809	EPA 6010C
7439-89-6	Iron	14200	1		0.486	4.05	8.09	EPA 6010C
7439-92-1	Lead	10.7	1		0.194	1.62	3.24	EPA 6010C
7439-95-4	Magnesium	799	1		1.94	20.2	40.5	EPA 6010C
7439-96-5	Manganese	106	1		0.0120	0.809	1.62	EPA 6010C
7440-02-0	Nickel	6.30	1		0.0664	0.405	0.809	EPA 6010C
7440-09-7	Potassium	618	1		6.15	40.5	80.9	EPA 6010C
7782-49-2	Selenium	<1.62	1	U	0.259	1.62	3.24	EPA 6010C
7440-22-4	Silver	<0.405	1	U	0.0793	0.405	0.809	EPA 6010C
7440-23-5	Sodium <b>B - EBL</b>	19.8	1	<del>J</del>	3.88	20.2	40.5	EPA 6010C
7440-28-0	Thallium	<3.24	1	U	0.469	3.24	6.47	EPA 6010C
7440-62-2	Vanadium	21.5	1		0.0680	0.809	1.62	EPA 6010C
7440-66-6	Zinc	31.4	1		0.761	1.62	3.24	EPA 6010C

KW071315

# INORGANIC ANALYSIS DATA SHEET

EPA 6010C

A502198-11 (YS25-SS17-0415)

Laboratory: ENCO Jacksonville

SDG: A502198-WE19

Client: ENCO Orlando

Project: CTO-WE19 Yorktown Site 25-SOILS

Matrix: Soil

Laboratory ID: B501678-11

File ID: 042015a-038

Sampled: 04/09/15 13:15

Prepared: 04/14/15 12:22

Analyzed: 04/20/15 11:41

Solids: 85.16

Preparation: EPA 3050B

Initial/Final: 0.61 g / 50 mL

Batch: 5D14004

Sequence:

BA16540

Calibration: 1504004

Instrument: JMICP2

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	Q	DL	LOD	LOQ	Method
7429-90-5	Aluminum	7010	1		2.50	19.3	38.5	EPA 6010C
7440-36-0	Antimony	<1.93	1	U	0.385	1.93	3.85	EPA 6010C
7440-38-2	Arsenic	4.24	1		0.828	1.93	3.85	EPA 6010C
7440-39-3	Barium	43.2	1		0.0385	0.481	0.963	EPA 6010C
7440-41-7	Beryllium	0.641	1		0.0150	0.0481	0.0963	EPA 6010C
7440-43-9	Cadmium	0.672	1		0.0123	0.193	0.385	EPA 6010C
7440-70-2	Calcium	1780	1		3.66	24.1	48.1	EPA 6010C
7440-47-3	Chromium	11.2	1		0.0424	0.481	0.963	EPA 6010C
7440-48-4	Cobalt	4.29	1		0.0809	0.963	3.85	EPA 6010C
7440-50-8	Copper	26.6	1		0.212	0.481	0.963	EPA 6010C
7439-89-6	Iron	9990	1		0.578	4.81	9.63	EPA 6010C
7439-92-1	Lead	52.2	1		0.231	1.93	3.85	EPA 6010C
7439-95-4	Magnesium	1010	1		2.31	24.1	48.1	EPA 6010C
7439-96-5	Manganese	210	1		0.0142	0.963	1.93	EPA 6010C
7440-02-0	Nickel	5.27	1		0.0789	0.481	0.963	EPA 6010C
7440-09-7	Potassium	371	1		7.32	48.1	96.3	EPA 6010C
7782-49-2	Selenium	<1.93	1	U	0.308	1.93	3.85	EPA 6010C
7440-22-4	Silver	<0.481	1	U	0.0943	0.481	0.963	EPA 6010C
7440-23-5	Sodium <b>B - EBL</b>	29.3	1	<b>-J-</b>	4.62	24.1	48.1	EPA 6010C
7440-28-0	Thallium <b>B - EBL</b>	0.612	1	<b>-J-</b>	0.558	3.85	7.70	EPA 6010C
7440-62-2	Vanadium	17.4	1		0.0809	0.963	1.93	EPA 6010C
7440-66-6	Zinc	86.6	1		0.905	1.93	3.85	EPA 6010C

KW071315

# INORGANIC ANALYSIS DATA SHEET

EPA 6010C

A502198-12 (YS25-SB17-0H02-0415)

Laboratory: ENCO Jacksonville

SDG: A502198-WE19

Client: ENCO Orlando

Project: CTO-WE19 Yorktown Site 25-SOILS

Matrix: Soil

Laboratory ID: B501678-12

File ID: 042015a-039

Sampled: 04/09/15 13:25

Prepared: 04/14/15 12:22

Analyzed: 04/20/15 11:43

Solids: 86.74

Preparation: EPA 3050B

Initial/Final: 0.76 g / 50 mL

Batch: 5D14004

Sequence:

BA16540

Calibration: 1504004

Instrument: JMICP2

CAS NO.	Analyte	Concentration (mg/kg dry)	Dilution Factor	Q	DL	LOD	LOQ	Method
7429-90-5	Aluminum	8800	1		1.97	15.2	30.3	EPA 6010C
7440-36-0	Antimony	<1.52	1	U	0.303	1.52	3.03	EPA 6010C
7440-38-2	Arsenic	4.27	1		0.652	1.52	3.03	EPA 6010C
7440-39-3	Barium	49.0	1		0.0303	0.379	0.758	EPA 6010C
7440-41-7	Beryllium	0.637	1		0.0118	0.0379	0.0758	EPA 6010C
7440-43-9	Cadmium	0.0184	1	J	0.00971	0.152	0.303	EPA 6010C
7440-70-2	Calcium	1040	1		2.88	19.0	37.9	EPA 6010C
7440-47-3	Chromium	10.5	1		0.0334	0.379	0.758	EPA 6010C
7440-48-4	Cobalt	6.11	1		0.0637	0.758	3.03	EPA 6010C
7440-50-8	Copper	7.45	1		0.167	0.379	0.758	EPA 6010C
7439-89-6	Iron	12800	1		0.455	3.79	7.58	EPA 6010C
7439-92-1	Lead	10.6	1		0.182	1.52	3.03	EPA 6010C
7439-95-4	Magnesium	744	1		1.82	19.0	37.9	EPA 6010C
7439-96-5	Manganese	118	1		0.0112	0.758	1.52	EPA 6010C
7440-02-0	Nickel	6.86	1		0.0622	0.379	0.758	EPA 6010C
7440-09-7	Potassium	476	1		5.76	37.9	75.8	EPA 6010C
7782-49-2	Selenium	<1.52	1	U	0.243	1.52	3.03	EPA 6010C
7440-22-4	Silver	<0.379	1	U	0.0743	0.379	0.758	EPA 6010C
7440-23-5	Sodium <b>B - EBL</b>	19.5	1	<b>-J-</b>	3.64	19.0	37.9	EPA 6010C
7440-28-0	Thallium <b>B - EBL</b>	0.649	1	<b>-J-</b>	0.440	3.03	6.07	EPA 6010C
7440-62-2	Vanadium	19.2	1		0.0637	0.758	1.52	EPA 6010C
7440-66-6	Zinc	27.4	1		0.713	1.52	3.03	EPA 6010C

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